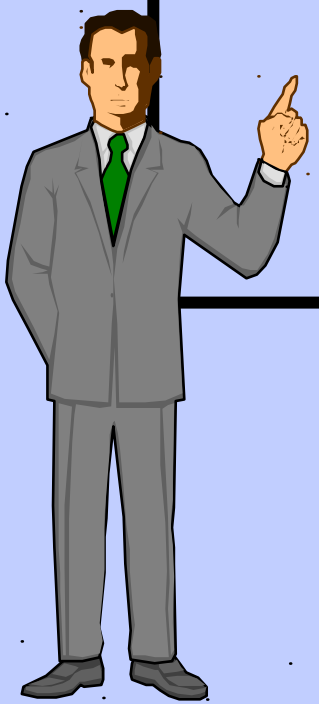
Project Reviews and Meetings

Objectives



What Software Project Managers need to know to:

- **Identify the types of reviews and meetings**
- **Understand when and why to hold reviews and meetings**
- **Use the 10 Steps to productive reviews and meetings**

Types of Reviews and Meetings

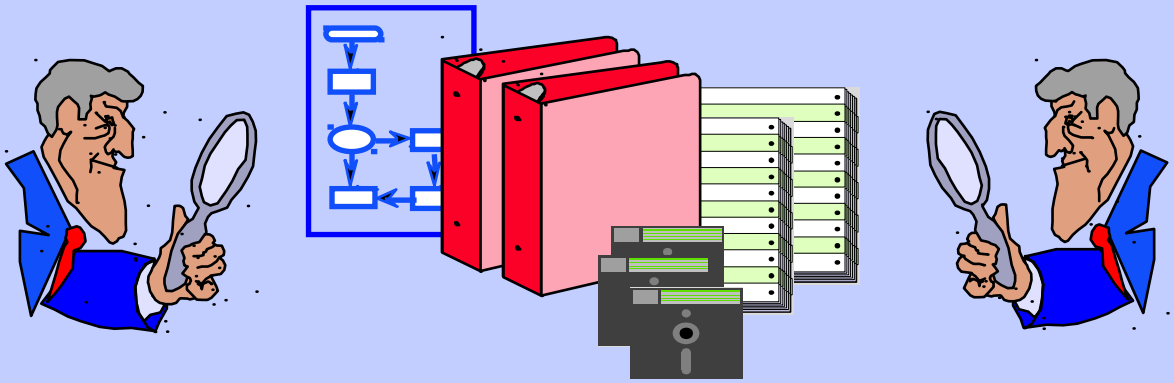
- **Technical Reviews**
  - Address technical issues: requirements, design, code
  - Example: Formal Inspections
- **Management Reviews**
  - Address project issues: status, budget, schedule
  - Example: Design Review
- **Meetings**
  - Gathering of people for a business purpose
  - Examples: staff meetings, committee meetings, training sessions

Technical Reviews

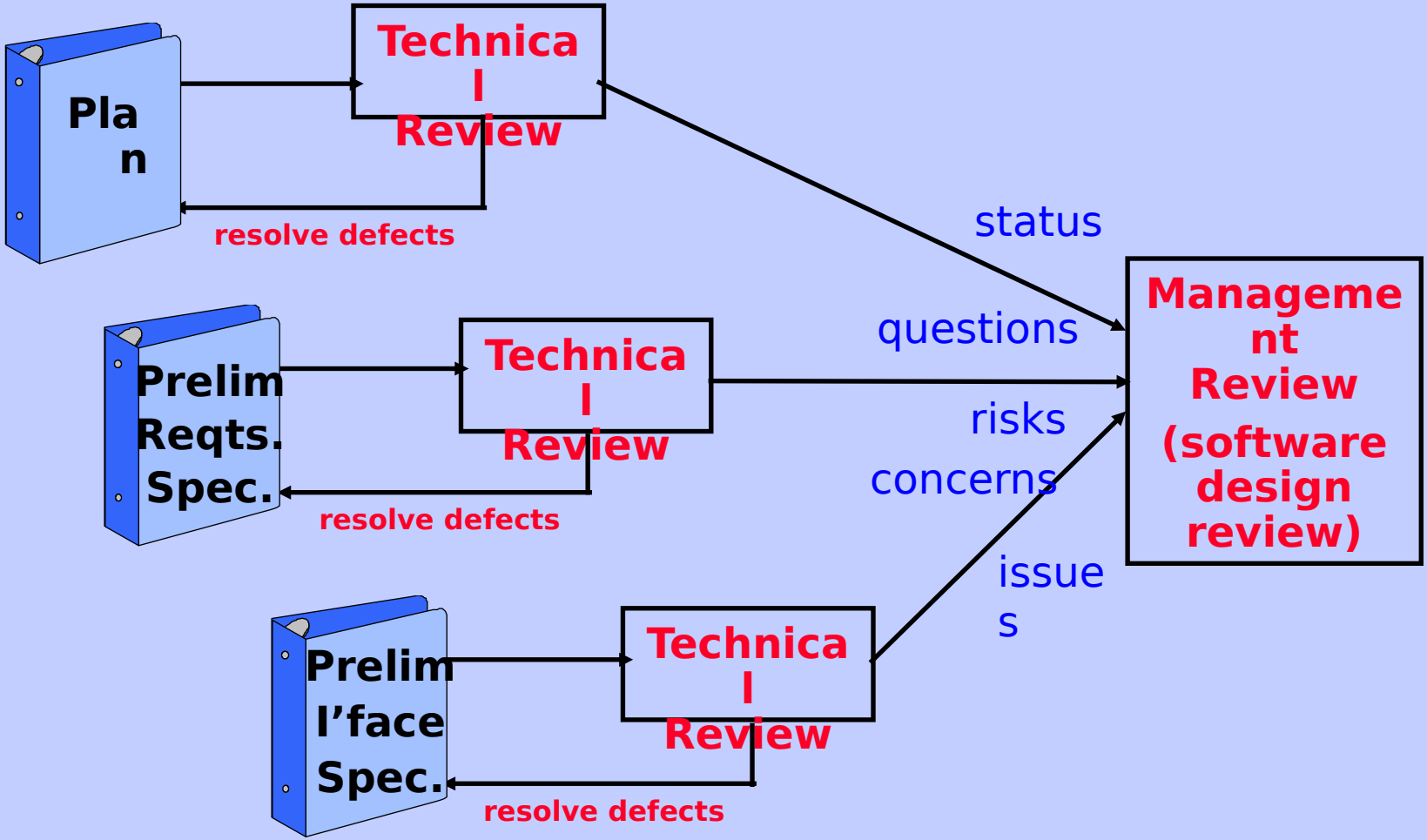
- **Address technical issues: evolving software products, services, solutions**
- **Are attended only by persons with technical knowledge of the subject matter, not management**
  - **Includes both acquirer and developer technical personnel**
  - **In requirements phase includes customers, users**
  - **Includes SQA, SCM, V&V, test as needed**
- **Report the actual technical status of the project to management**
- **Identify risks and issues to be raised at Management Reviews**
- **Examples: Formal Inspection**
  Code walkthrough
  Design tradeoff meeting
  Process review

Technical Review Criteria for a Software Product or Service

- **Is it complete?**
- **Does it comply with standards and specifications?**
- **Are changes properly implemented?**
- **Does it adhere to the applicable schedule?**
- **Is it ready for the next planned activity?**
- **Is development being conducted according to the plans, standards, and guidelines of the project?**



Technical Reviews provide inputs to Management Reviews

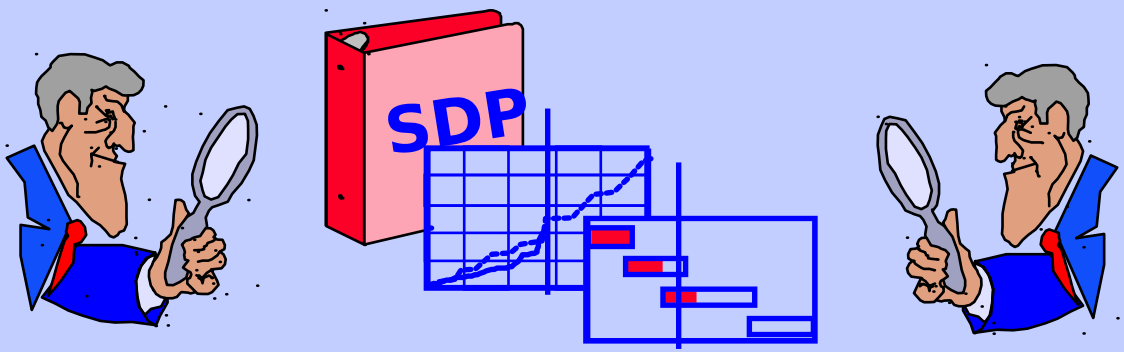


Management Reviews

- **Address project issues: status versus plans, schedules, standards**
- **Keep management informed about status, direction, agreements**
- **Are attended by technical leaders, project managers, and managers (with decision authority over cost and schedule)**
- **Identify and resolve risks**
  - **Are we ready to continue? Should we continue?**
- **Receive input, resolve issues from several Technical Reviews**
- **Examples: Requirements review**
  Design review
  Test readiness review

Management Review Criteria

- **Is progress according to plan?**
- **Are schedules, standards, and guidelines being followed?**
- **Are resources adequately allocated?**
- **Are risks jeapordizing success?**
- **Are we making good decisions based on metrics?**
- **Do we need to change direction or revise plans?**



Project Reviews/Meetings

Management Review Terminology

DOD-STD-2167A Formal Reviews (10) (11)	MIL-STD-498 Joint Mgmt. Reviews (11)	IEEE/EIA 12207 Project mgmt. reviews
		Software plan review
	Software plan review	
		Operational concept review
Operational concept review		
System Reqts. Rev.(SRR)		System/subsys. reqts rev.
	System/subsys. reqts rev.	
System Design Rev.(SDR)		System/subsys. design rev.
System/subsys design rev.		
Software Spec. Rev. (SSR)		Software reqts review
	Software reqts. review	
Prelim Design Rev. (PDR)		
Critical Design Rev. (CDR)		Software design review
	Software design review	
Test Readiness Rev. (TRR)		Test readiness review
	Test readiness review	
		Test results review
	Test results review	
Production Readiness Rev(PRR)	--	--
		Software usability review
	Software maintenance rev.	
		Software supportability
	Software supportability rev.	

SSC SD Management Project/Design Reviews

- Development projects will be subject to periodic review
  SPAWARSYSCEN SAN DIEGO INST 3912.1A of 18 Dec 1997
- Purpose: to help project managers meet cost, schedule, and technical requirements
- SC SD Department Heads to identify applicable projects
- Program Managers to adhere to policies and procedures
- Design Review Committee to coordinate reviews
- Review topics:

Management practices	Technical processes
Requirements and approaches	Test and evaluation
Schedule and budget	Documentation plans/status
Procurement status	Product assurance plans/status

- Instruction available at:

http://iweb.spawar.navy.mil/services/sti/publications/inst/subjects.html

Meetings

Purposes:

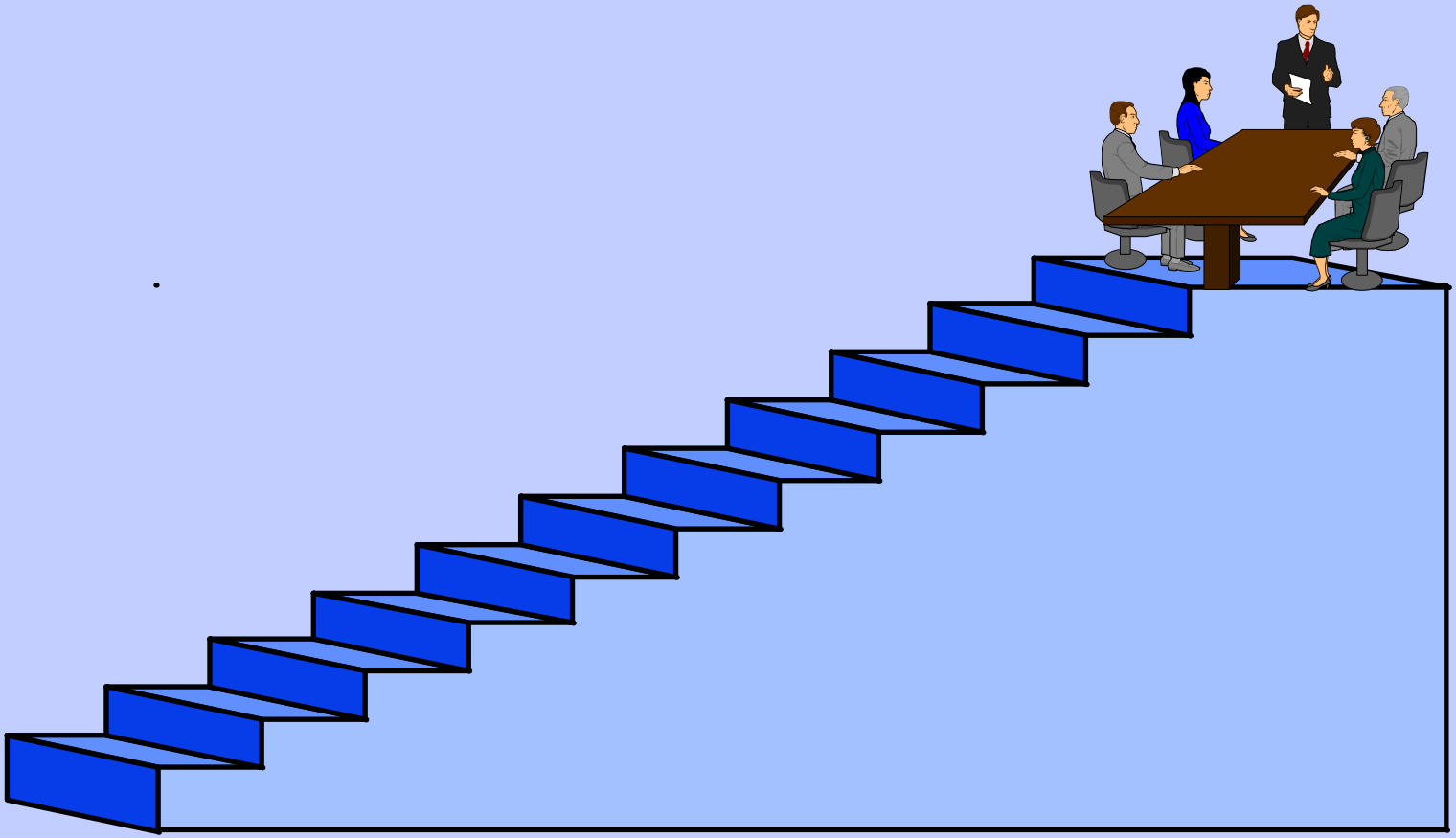
- **Convey information to a group**
- **Solicit information**
- **Answer questions**
- **Brainstorm**
- **Make a decision as a group**
- **Convince or persuade team of idea**
- **Maintain team spirit, involvement**

Examples: **Weekly Status Meeting**
All-Hands Meeting
Committee Meeting

Question: What are the Consequences of Poorly-Run Reviews and Meetings?

Exercise:
How Can Reviews and Meetings Be More Productive?

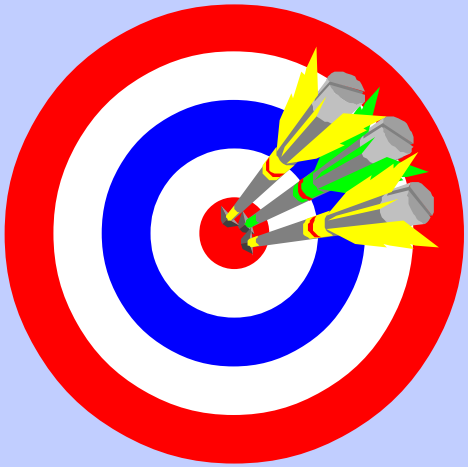
The Steps to Successful Reviews and Meetings



Step 1: Establish Type of Review/Meeting and the G_____ and O_____

- **Determine type of review/meeting: Technical Review, Management Review, program review, status meeting, staff meeting, etc.**
- **What outcome or decision do you expect to reach?**
- **Should be goal-oriented, value-added, and primarily non-adversarial**

Examples:

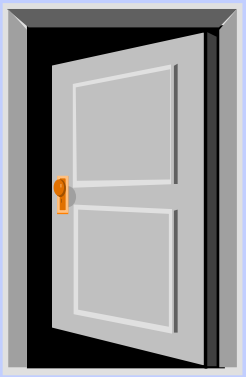


"Reach agreement on interface requirements."

"Review project status and risks to determine if requirements need to be reduced."

"Announce the new project organization and decide on new office spaces."

Step 2: Establish E_____ C_____ and E_____ C_____



- **Entrance criteria**: What must occur prior t
  review or meeting in order to make it successful

  Derived from goals/objectives

  Examples: Completion of the work product
  to be approved

  All attendees read IRS, review r

- **Exit criteria**: What must be accomplished for
  the review or meeting to be closed

  Example: Identify and document all discrepancies

- Both must be established prior to review/meeting

Step 3: Be Organized; Be Prepared

- Select the right participants - get a good mix
  - Invite only those who have a stake in the outcome
  - Continuity of participants is important!!
- Assign roles: leader, facilitator, timekeeper, reco
- Have an agenda - keep to it
  - Hand out agenda ahead of time
- Insist that participants be prepared

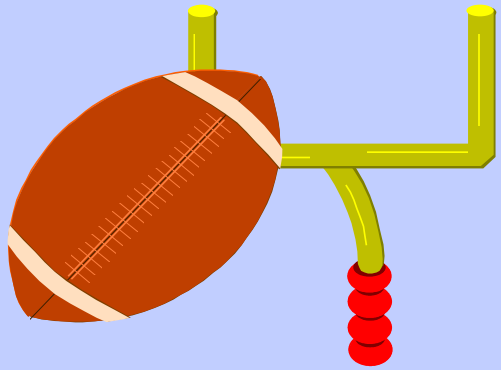
Step 4: * Hold a kick-off meeting for Reviews

- Review goals/objectives of the review with the developer (part

  - Schedule at least two weeks prior to the meeting

  - Doesn't have to be face-to-face in the same room, could be video teleconference or phone call

Example: Formal Inspection Overview Meeting



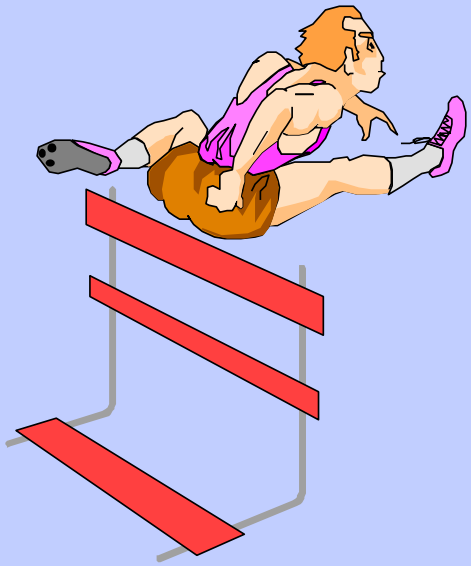
* - applies to reviews only

Step 5: *Hold a Government-only pre-review meeting (if applicable)

- Evaluate goals/objectives of the review, controversial areas, known deficiencies
- Purpose is to achieve Government consensus
- Most important if multiple Government agencies are involved

* - applies to Management Review only

Step 6: Get Off to a Good Start

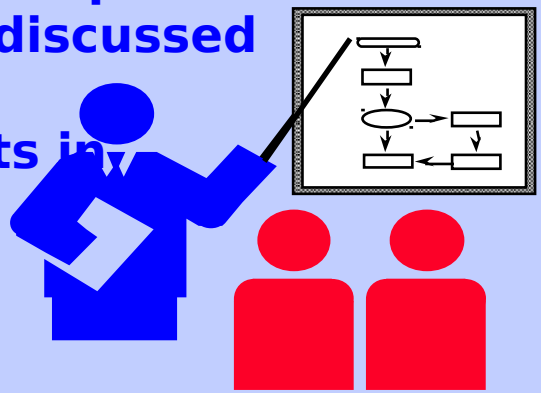


- Make the participants feel comfortable
  - Ensure adequate facilities (space, lights, air conditioning, ...)
  - Set up room to accommodate the objecti

    (for best communications, use U-shape or oval)
- Arrange for food, drinks, breaks
- Provide welcome and introductions
- Summarize roles, goals, objectives, agenda
- Verify that Entrance Criteria have been met

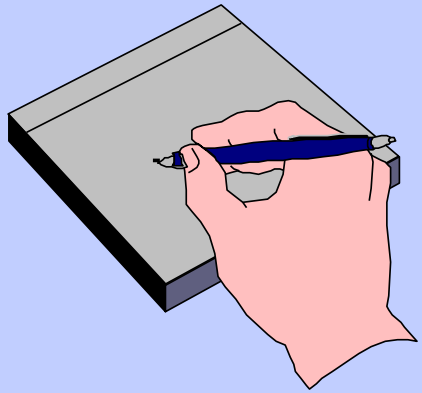
Step 7: Establish Ground Rules

- **Getting everyone's input**
  - Use round robin or query those not contributing
  - Show appreciation for constructive participation
  - Encourage open communication
  - Use everyone's talents--that is why they are there
- **Limiting the number and length of presentations**
  - Agree on time limits, assign timekeeper
- **Controlling the group size**
  - If the group is over 10, divide the group into smaller teams to divide up the issue to be discussed
- **Using prototypes to assist participants in understanding and communication**
- **Handling disagreements or conflicts**



Step 8: Take M_____ of Proceedings and Assign A_____ I_____

- Sample contents:
  - Review name and objectives
  - Attendees
  - Results and Decisions
  - Action Items



- Assign action items for open issues
  - Specify due date, priority, and responsible person

- Review action items and decisions prior to close of review/meeting
  - Action Items that can be answered during the review/meeting should be answered then and allow time for more detailed analysis of more profound Action Items

- Confirm that Exit Criteria are met

- Send out minutes in a timely manner for review and comment

Step 9: Request F_____ on how to improve the review/meeting process

- Reviews and meetings span the life of all projects
- All attendees want reviews and meetings to be productive
- Example feedback questions
  - Was the agenda available beforehand?
  - How can we foster better communication?
  - Do we have the right attendees?
  - Were the physical facilities adequate?
  - How can our reviews and meetings be improved?

Step 10: Track, Follow-up on A_____ I_____

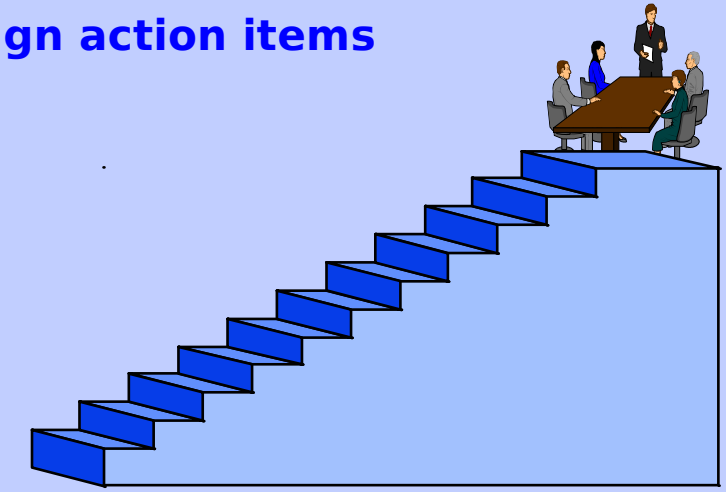
- **Establish an Action Item tracking system**

  Sample Contents: A.I. number
  Description
  Priority
  Date Assigned
  Responsible person(s)
  Estimated Completion Date
  Status
  Date Closed

- **Collect the metric: outstanding action items**
  - Measures the health of a software project
- **Schedule an in-progress (status) review or meeting if needed**
- **Prepare for next review/meeting**

Summary: The Steps to Successful Reviews and Meetings

1. Establish type of review/meeting and the goals and objectives
2. Establish entrance criteria and exit criteria
3. Be organized, be prepared
4. Hold a kick-off meeting (for Reviews only)
5. Hold a Government-only pre-review meeting (for reviews only)
6. get off to a good start
7. Establish ground rules
8. Take minutes of proceedings and assign action items
9. Request feedback on how to improve the review/meeting process
10. Track, follow up on action items



Sample Agenda

XYZ Project Status Meeting, Jan 2, 2000

10:00	Welcome and introductions	*Rex*
10:05	Meeting Objective : *Assess impact of new project requirements on schedule*	*Rex*
10:07	Entrance Criteria: *Attendees review change proposal ECP123 and our SDP*	*Rex*
	Exit Criteria: *Agree on impact to schedules, organization, and costs*	
10:10	Proposed Ground Rules ...	*Colin*
10:15	Discussion Items:	
	1. *Review change proposal*	*Mary*
	2. *Impacts to SDP, schedule, costs*	*George*
	etc.	
11:15	Review of Action Items	*Jay*
11:20	Feedback on meeting process	*Rex*
11:29	Set date for next meeting	*Rex*
11:30	Adjourn	

The Software Project Manager shall:

- **Conduct reviews and meetings when appropriate**
- **Separate technical reviews from management reviews**
- **Apply the 10 key steps to make them successful**

Implement Step 9:
Please fill out your evaluation form for this section now.

References

- **IEEE Std 1028, IEEE Standard for Software Reviews and Audits**
- **SPAWARSYSCEN SD INST 3912.1A Management Project/Design Re**
- **MIL-STD-1521B, Technical Reviews and Audits for Systems, Equipments, and Computer Software. Describes 10 reviews a audits for DOD-STD 2167A. Cancelled 10 April 1995.**
- **MIL-STD-973, Configuration Management. Supersedes 1521B for FCA, PCA, FQR.**
- **SEPO, Peer Review Process**
- **SEPO, SSC SD Software Management for Executives Guidebook**
- **Weinberg, Gerald M., Daniel P. Freedman, Handbook of Walkthrou Inspections and Technical Reviews Evaluating Programs, Project and Products**